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L3	L2 and (symmetric$7)	10	L3
L2	L1 and (magnet$8 with coupl$5)	23	L2
L1	4620155	41	L1

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Search Results - Record(s) 1 through 23 of 23 returned.

☐ 1. Document ID: US 6011393 A

L2: Entry 1 of 23 File: USPT Jan 4, 2000

US-PAT-NO: 6011393
DOCUMENT-IDENTIFIER: US 6011393 A

TITLE: Self-supporting RF coil for MRI

DATE-ISSUED: January 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kaufman; Leon	San Francisco	CA		
Carlson; Joseph W.	Kensington	CA		

US-CL-CURRENT: 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 2. Document ID: US 5621323 A

L2: Entry 2 of 23 File: USPT Apr 15, 1997

US-PAT-NO: 5621323
DOCUMENT-IDENTIFIER: US 5621323 A

TITLE: Surface coil elements

DATE-ISSUED: April 15, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Larsen; Sanford	Provo	UT		

US-CL-CURRENT: 324/318; 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

☐ 3. Document ID: US 5476095 A

L2: Entry 3 of 23 File: USPT Dec 19, 1995

US-PAT-NO: 5476095

DOCUMENT-IDENTIFIER: US 5476095 A

TITLE: Intracavity probe and interface device for MRI imaging and spectroscopy

DATE-ISSUED: December 19, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schnall; Mitchell D.	Lansdowne	PA		
Lenkinski; Robert E.	Drexel Hill	PA		
Kressel; Herbert Y.	Wynnewood	PA		
Pollack; Howard M.	Cheltenham	PA		

US-CL-CURRENT: 600/423; 604/919

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 5348010 A

L2: Entry 4 of 23 File: USPT Sep 20, 1994

US-PAT-NO: 5348010
DOCUMENT-IDENTIFIER: US 5348010 A

TITLE: Intracavity probe and interface device for MRI imaging and spectroscopy

DATE-ISSUED: September 20, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schnall; Mitchell D.	Lansdowne	PA		
Lenkinski; Robert E.	Drexel Hill	PA		
Kressel; Herbert Y.	Wynnewood	PA		
Pollack; Howard M.	Cheltenham	PA		
Claiborne; Theodore C.	Gibsonia. all of	PA		
Misic; George J.	Novelty	OH		
Welch; Thomas R.	Gibsonia	PA		
Rhinehart; Edward J.	Monroeville	PA		

US-CL-CURRENT: 600/422; 600/421, 604/919

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 5302901 A

L2: Entry 5 of 23 File: USPT Apr 12, 1994

US-PAT-NO: 5302901
DOCUMENT-IDENTIFIER: US 5302901 A

TITLE: Magnetic resonance apparatus comprising decoupled receiver coils

DATE-ISSUED: April 12, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Snelten; Jeroen	Eindhoven			NLX

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 6. Document ID: US 5256972 A

L2: Entry 6 of 23 File: USPT Oct 26, 1993

US-PAT-NO: 5256972
DOCUMENT-IDENTIFIER: US 5256972 A

TITLE: Body coil decoupling circuit

DATE-ISSUED: October 26, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Keren; Hanan	Kfar Saba			ILX
Shalev; Noam	Natanya			ILX
Harel; Zeev	Natanya			ILX

US-CL-CURRENT: 324/318; 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 7. Document ID: US 5168230 A

L2: Entry 7 of 23 File: USPT Dec 1, 1992

US-PAT-NO: 5168230
DOCUMENT-IDENTIFIER: US 5168230 A

TITLE: Dual frequency NMR surface coil pair with interleaved lobe areas

DATE-ISSUED: December 1, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hashoian; Ralph S.	Brookfield	WI		
Belt; Kenneth W.	Fort Atkinson	WI		

US-CL-CURRENT: 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 8. Document ID: US 5006803 A

L2: Entry 8 of 23 File: USPT Apr 9, 1991

US-PAT-NO: 5006803
DOCUMENT-IDENTIFIER: US 5006803 A

TITLE: Nuclear magnetic resonance apparatus with surface coil detection

DATE-ISSUED: April 9, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boskamp; Eddy B.	Eindhoven			NLX
Kemner; Rudolf	Eindhoven			NLX

US-CL-CURRENT: 324/311; 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 9. Document ID: US 5003265 A

L2: Entry 9 of 23 File: USPT Mar 26, 1991

US-PAT-NO: 5003265
DOCUMENT-IDENTIFIER: US 5003265 A

TITLE: Magnetic resonance imaging apparatus comprising an RF coil system

DATE-ISSUED: March 26, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Leussler; Christoph G.	Hamburg			DEX

US-CL-CURRENT: 324/318; 333/219

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 10. Document ID: US 4996481 A

L2: Entry 10 of 23 File: USPT Feb 26, 1991

US-PAT-NO: 4996481
DOCUMENT-IDENTIFIER: US 4996481 A

TITLE: Magnetic resonance RF probe with electromagnetically isolated transmitter and receiver coils

DATE-ISSUED: February 26, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ackerman; Joseph J. H.	St. Louis	MO		
Chen; Wei	St. Louis	MO		

US-CL-CURRENT: 324/318; 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 11. Document ID: US 4855680 A

L2: Entry 11 of 23 File: USPT Aug 8, 1989

US-PAT-NO: 4855680
DOCUMENT-IDENTIFIER: US 4855680 A

TITLE: Enhanced decoupling of MRI RF coil pairs during RF tuning of MRI RF transmit coil

DATE-ISSUED: August 8, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Arakawa; Mitsuaki	Hillsborough	CA		
Nichols; Brenda G.	San Francisco	CA		

US-CL-CURRENT: 324/314; 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 12. Document ID: US 4812761 A

L2: Entry 12 of 23 File: USPT Mar 14, 1989

US-PAT-NO: 4812761
DOCUMENT-IDENTIFIER: US 4812761 A

TITLE: Electrically parallel equal phase resonant loops for nuclear magnetic resonance surface coils

DATE-ISSUED: March 14, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vaughan, Jr.; J. Thomas	Dallas	TX		

US-CL-CURRENT: 324/307; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 13. Document ID: US 4810968 A

L2: Entry 13 of 23 File: USPT Mar 7, 1989

US-PAT-NO: 4810968
DOCUMENT-IDENTIFIER: US 4810968 A

TITLE: Magnetic resonance imaging apparatus comprising a pin diode uncoupled detection coil

DATE-ISSUED: March 7, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Van Heelsbergen; Teunis R.	Eindhoven			NLX

US-CL-CURRENT: 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 14. Document ID: US 4792760 A

L2: Entry 14 of 23 File: USPT Dec 20, 1988

US-PAT-NO: 4792760
DOCUMENT-IDENTIFIER: US 4792760 A

TITLE: Reception antenna for optical image formation device using nuclear magnetic resonance

DATE-ISSUED: December 20, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacob; Herv/e/	Gif-Sur-Yvette			FRX
Bussaeri; Jean	Ablis			FRX

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 15. Document ID: US 4783629 A

L2: Entry 15 of 23 File: USPT Nov 8, 1988

US-PAT-NO: 4783629
DOCUMENT-IDENTIFIER: US 4783629 A

TITLE: RF coil for MRI with self-tracking ganged coupling capacitors

DATE-ISSUED: November 8, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Arakawa; Mitsuaki	Hillsborough	CA		
Crooks; Lawrence E.	Richmond	CA		

US-CL-CURRENT: 324/322; 324/318, 333/32, 361/289

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 16. Document ID: US 4782298 A

L2: Entry 16 of 23 File: USPT Nov 1, 1988

US-PAT-NO: 4782298
DOCUMENT-IDENTIFIER: US 4782298 A

TITLE: MRI QD RF coil having diode switched detuning circuit producing reduced artifact

DATE-ISSUED: November 1, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Arakawa; Mitsuaki	Hillsborough	CA		
McCarten; Barry M.	Los Altos	CA		

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 17. Document ID: US 4775837 A

L2: Entry 17 of 23 File: USPT Oct 4, 1988

US-PAT-NO: 4775837
DOCUMENT-IDENTIFIER: US 4775837 A

TITLE: Surface coil for high-frequency magnetic fields for magnetic resonance examinations

DATE-ISSUED: October 4, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roschmann; Peter	Hamburg			DEX

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 18. Document ID: US 4739271 A

L2: Entry 18 of 23 File: USPT Apr 19, 1988

US-PAT-NO: 4739271
DOCUMENT-IDENTIFIER: US 4739271 A

TITLE: Decoupling multiple-coil NMR probes

DATE-ISSUED: April 19, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Haase; Axel	Goettingen			DEX

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 19. Document ID: US 4736161 A

L2: Entry 19 of 23 File: USPT Apr 5, 1988

US-PAT-NO: 4736161
DOCUMENT-IDENTIFIER: US 4736161 A

TITLE: High frequency antenna for a nuclear magnetic resonance measuring apparatus

DATE-ISSUED: April 5, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Prevot; Claude	Antony			FRX
Encellaz; Robert	Beynes			FRX
Chesneau; Rene	Sceaux			FRX

US-CL-CURRENT: 324/318; 324/313

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 20. Document ID: US 4731585 A

L2: Entry 20 of 23 File: USPT Mar 15, 1988

US-PAT-NO: 4731585
DOCUMENT-IDENTIFIER: US 4731585 A

TITLE: Antenna coupling circuit for magnetic resonance imaging

DATE-ISSUED: March 15, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fox; Timothy R.	Chicago	IL		

US-CL-CURRENT: 324/322; 327/320, 327/594

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 21. Document ID: US 4717881 A

L2: Entry 21 of 23 File: USPT Jan 5, 1988

US-PAT-NO: 4717881
DOCUMENT-IDENTIFIER: US 4717881 A

TITLE: Radio frequency coils for nuclear magnetic resonance imaging systems

DATE-ISSUED: January 5, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Flugan; David C.	Hudson	OH		

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 22. Document ID: US 4680549 A

L2: Entry 22 of 23 File: USPT Jul 14, 1987

US-PAT-NO: 4680549
DOCUMENT-IDENTIFIER: US 4680549 A

TITLE: NMR coil arrangement

DATE-ISSUED: July 14, 1987

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tanttu; Jukka	Espoo			FIX

US-CL-CURRENT: 324/318; 324/309, 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 23. Document ID: US 4620155 A

L2: Entry 23 of 23 File: USPT Oct 28, 1986

US-PAT-NO: 4620155

DOCUMENT-IDENTIFIER: US 4620155 A

TITLE: Nuclear magnetic resonance imaging antenna subsystem having a plurality of non-orthogonal surface coils

DATE-ISSUED: October 28, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Edelstein; William A.	Schenectady	NY		

US-CL-CURRENT: 324/322; 324/318

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Term	Documents
MAGNET$8	0
MAGNET.USPT.	97153
MAGNETA.USPT.	588
MAGNETABLE.USPT.	5
MAGNETABLY.USPT.	1
MAGNETABRASIVE.USPT.	4
MAGNETACOUSTIC.USPT.	1
MAGNETACTUATED.USPT.	1
MAGNETAGRAPH.USPT.	1
MAGNETAIZED.USPT.	1
MAGNETAL.USPT.	2
(L1 AND (MAGNET$8 WITH COUPL$5)).USPT.	23

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☐ 1. Document ID: US 5621323 A

L3: Entry 1 of 10 File: USPT Apr 15, 1997

US-PAT-NO: 5621323
DOCUMENT-IDENTIFIER: US 5621323 A

TITLE: Surface coil elements

DATE-ISSUED: April 15, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Larsen; Sanford	Provo	UT		

US-CL-CURRENT: 324/318; 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 5302901 A

L3: Entry 2 of 10 File: USPT Apr 12, 1994

US-PAT-NO: 5302901
DOCUMENT-IDENTIFIER: US 5302901 A

TITLE: Magnetic resonance apparatus comprising decoupled receiver coils

DATE-ISSUED: April 12, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Snelten; Jeroen	Eindhoven			NLX

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☑ 3. Document ID: US 5168230 A

L3: Entry 3 of 10 File: USPT Dec 1, 1992

US-PAT-NO: 5168230
DOCUMENT-IDENTIFIER: US 5168230 A

TITLE: Dual frequency NMR surface coil pair with interleaved lobe areas

DATE-ISSUED: December 1, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hashoian; Ralph S.	Brookfield	WI		
Belt; Kenneth W.	Fort Atkinson	WI		

US-CL-CURRENT: 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 5006803 A

L3: Entry 4 of 10 File: USPT Apr 9, 1991

US-PAT-NO: 5006803
DOCUMENT-IDENTIFIER: US 5006803 A

TITLE: Nuclear magnetic resonance apparatus with surface coil detection

DATE-ISSUED: April 9, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Boskamp; Eddy B.	Eindhoven			NLX
Kemner; Rudolf	Eindhoven			NLX

US-CL-CURRENT: 324/311; 324/322

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 4996481 A

L3: Entry 5 of 10 File: USPT Feb 26, 1991

US-PAT-NO: 4996481
DOCUMENT-IDENTIFIER: US 4996481 A

TITLE: Magnetic resonance RF probe with electromagnetically isolated transmitter and receiver coils

DATE-ISSUED: February 26, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ackerman; Joseph J. H.	St. Louis	MO		
Chen; Wei	St. Louis	MO		

US-CL-CURRENT: 324/318; 324/322

☐ 6. Document ID: US 4812761 A

L3: Entry 6 of 10 File: USPT Mar 14, 1989

US-PAT-NO: 4812761
DOCUMENT-IDENTIFIER: US 4812761 A

TITLE: Electrically parallel equal phase resonant loops for nuclear magnetic resonance surface coils

DATE-ISSUED: March 14, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vaughan, Jr.; J. Thomas	Dallas	TX		

US-CL-CURRENT: 324/307; 324/318

☐ 7. Document ID: US 4792760 A

L3: Entry 7 of 10 File: USPT Dec 20, 1988

US-PAT-NO: 4792760
DOCUMENT-IDENTIFIER: US 4792760 A

TITLE: Reception antenna for optical image formation device using nuclear magnetic resonance

DATE-ISSUED: December 20, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jacob; Herv/e/	Gif-Sur-Yvette			FRX
Bussaeri; Jean	Ablis			FRX

US-CL-CURRENT: 324/322; 324/318

☐ 8. Document ID: US 4775837 A

L3: Entry 8 of 10 File: USPT Oct 4, 1988

US-PAT-NO: 4775837
DOCUMENT-IDENTIFIER: US 4775837 A

TITLE: Surface coil for high-frequency magnetic fields for magnetic resonance

examinations

DATE-ISSUED: October 4, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roschmann; Peter	Hamburg			DEX

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 9. Document ID: US 4736161 A

L3: Entry 9 of 10 File: USPT Apr 5, 1988

US-PAT-NO: 4736161
DOCUMENT-IDENTIFIER: US 4736161 A

TITLE: High frequency antenna for a nuclear magnetic resonance measuring apparatus

DATE-ISSUED: April 5, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Prevot; Claude	Antony			FRX
Encellaz; Robert	Beynes			FRX
Chesneau; Rene	Sceaux			FRX

US-CL-CURRENT: 324/318; 324/313

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 10. Document ID: US 4620155 A

L3: Entry 10 of 10 File: USPT Oct 28, 1986

US-PAT-NO: 4620155
DOCUMENT-IDENTIFIER: US 4620155 A

TITLE: Nuclear magnetic resonance imaging antenna subsystem having a plurality of non-orthogonal surface coils

DATE-ISSUED: October 28, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Edelstein; William A.	Schenectady	NY		

US-CL-CURRENT: 324/322; 324/318

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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SYMMETRICAILY.USPT.	1
SYMMETRICAJLY.USPT.	1
SYMMETRICAK.USPT.	1
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DOCUMENT-IDENTIFIER: US 5168230 A
TITLE: Dual frequency NMR surface coil pair with interleaved lobe areas

Brief Summary Paragraph Right (6):
A dual frequency NMR coil pair includes first and second coils, each tuned to a different resonant frequency. The first coil includes a first conductive loop which defines a first perimeter, the first perimeter enclosing a first area comprised of an inner area and a first plurality of lobes extending outwardly from the inner area. Similarly, the second coil includes a second conductive loop which defines a second perimeter, the second perimeter enclosing a second area comprised of a second inner area and a second plurality of lobes extending outwardly from the inner area. The first and second coils are arranged adjacent and in close proximity to each other such that the first and second inner areas substantially coincide with respect to magnetic flux coupling to the first and second inner areas. Further, the first plurality of lobes are interleaved with respect to the second plurality of lobes such that respective areas corresponding to the first and second plurality of lobes are substantially noncoincident with respect to magnetic flux coupling.

Detailed Description Paragraph Right (4):
Since the first and second coils 11 and 12 are arranged overlying and in close proximity to each other, the conductive loops 13 and 14 are separated by at most a small displacement so as to maintain electrical isolation between them. As a result, both coils 11 and 12 will exhibit almost exactly the same field of view. Further, the conductive loops 13 and 14 are formed so as to result in inner areas 13d and 14d, respectively, which are essentially the same shape and overlying one another. Consequently, magnetic flux coupling to either of the areas 13d or 14d will also couple nearly completely with the other area 14d or 13d, respectively. Even though the conductive loops 13 and 14 may be displaced from each other by a small amount, when the areas 13d and 14d are arranged over each other as shown, the difference in flux linkage between them is negligible.

Detailed Description Paragraph Right (7):
The field distributions 33-35 will induce localized currents in the other coil 12 in a such a way that the net effect is a composite current in coil 12 which is very near or equal to zero. Specifically, the flux 33 and 34 will tend to induce a localized current 31 in coil 12 in a "clockwise" direction around coil 12, while at the same time the flux distribution represented at 34 and 35 will tend to induce a localized current 32 in coil 12 in the opposite, or counter-clockwise direction. Opposed current pairs similar to those represented at 31 and 32 occur all around coil 12, with the effect that the opposed currents tend to "buck", or cancel each other. It is further possible to adjust the magnitude of the localized currents, particularly the outer current 32, by appropriate modifications of the dimensions for the lobes 13e and 14e. By arranging for the localized currents 31 and 32 to be approximately equal in magnitude, the currents 31 and 32 are forced to remain localized, with negligible net, or aggregate current. Due to the symmetrical layout of the coils 11 and 12, the above analysis is equally applicable to the opposite case of considering the coupling of currents in currents in coil 12 to coil 11. As a result each coil may operate at its own separate resonant frequency with negligible loading or loss by the other coil. In essence, the other coil appears to be "invisible" from an electromagnetic coupling viewpoint.

U.S. Reference Patent Number (4):
4620155

CLAIMS:

1. A dual frequency NMR coil pair comprising:

a first coil tuned to a first resonant frequency, the first coil including a first conductive loop which encloses an inner area and a first plurality of lobe areas which extend outwardly from the inner area;

a second coil tuned to a second resonant frequency which is different than the first resonant frequency, the second coil including a second conductive loop which encloses a second inner area and a second plurality of lobe areas which extend outwardly from the second inner area;

wherein the first and second coils are arranged adjacent to each other such that the first and second inner areas substantially coincide with respect to magnetic flux coupling to the first and second inner areas, and wherein the first plurality of lobe areas are interleaved with respect to the second plurality of lobe areas such that they are substantially noncoincident with respect to magnetic flux coupling.

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L15	L14 and (radial$3 or radius or radii)	149	L15
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L10	L3 not l5	49	L10
L9	L5 not l7	10	L9
L8	L7 and (antenn$2 with element)	2	L8
L7	L4 and L6	8	L7
L6	L5 and (coupl$4)	13	L6
L5	L3 and (radial$3 or radius or radii)	18	L5
L4	L3 and (cycl$5)	11	L4
L3	L2 and ((symmetry or symmetrical$4) with antenn$2)	67	L3
L2	L1 and (antenn$2)	1932	L2
L1	((magnetic adj resonance) or MRI or NMR)	126256	L1

END OF SEARCH HISTORY